



(S//SI) COMINT Collection System Installed on Finnish Aircraft

FROM: [REDACTED]
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Run Date: 07/21/2005

(S//SI) SNOWFLAKE (SN) is an airborne COMINT collection system featuring a HYPERWIDE frequency hopper. The SN system is an accommodation buy by the NSA Foreign Affairs Directorate and Radio Frequency Office (S331). The Finns contracted to purchase this system in 2002 for installation on an existing Finnish airframe, a Finnish Air Force Fokker F-27 SIGINT aircraft. The initial installation team arrived on site March 2, 2005, and worked continuously from that date until April 8, 2005.

(S//SI) The team alternately performed DF calibration of the aircraft platform between the Northrop Grumman system and the British Aerospace Engineering (BAE) system. This calibration was then followed by verification of the DF by using actual target radios. Twenty-three aircraft flights were required in order to complete a Full Operational Acceptance Testing.

(S//SI) The SNOWFLAKE system was designated to operate from 20 MHz to 3 GHz. It successfully operated at a frequency range of 20 MHz to 500 MHz during the site acceptance test, achieving DF measures and hearability results within the projected ranges. It did not, however, achieve the desired operational success from 500 MHz to 3 GHz. Finnish Intelligence Research Establishment (FIRE) will send equipment back to Northrop Grumman in early fall for correction.

(S//SI) On April 6, 2005, FAD representatives [REDACTED] (CDO Finland), [REDACTED] (Technical Liaison Manager Finland), [REDACTED] (CI Staff Officer), along with [REDACTED] (RFO), and senior representatives from Northrop Grumman and BAE attended the ribbon cutting for Final Site Acceptance Test for Project SNOWFLAKE at FIRE. The highlight of their visit was to experience an operational test flight aboard the Finnish aircraft. The flight took approximately 1-1/2 hours and flew within twelve miles of the Russian Border near Lake Ladoga. The Finns then hosted a celebratory dinner with NSA, Northrop Grumman, and BAE personnel.

[REDACTED]

(S//SI) From left: [REDACTED] RFO; [REDACTED], DP3; [REDACTED] Q22/FAD; [REDACTED], Northrop Grumman; [REDACTED], DP11; [REDACTED] SETA contractor in RFO, shown prior to their ride in the Finnish Air Force SIGINT aircraft

[REDACTED]

(S//SI) Finnish Air Force Fokker-27 SIGINT Aircraft

(U//FOUO) This article is reprinted from the Foreign Affairs Digest, June edition. It was originally titled "SNOWFLAKE and the Finns."

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